

Addendum to the Apple II Reference Manual

The main logic board of your Apple has been modified to reduce electromagnetic interference. This means it is different from the Apple boards which are described in the Apple II Reference Manual. It will not, however, behave differently in any specific way unless you have changes made to it.

You will know you have a new main board by looking at the white F on the far left side of the board. You'll see there this nine digit number 820-0044-xx, where xx is the revision level.

The major differences in the new main board are described below. Also, the attached schematics show the areas in which this board is different from earlier boards. You may wish to note these differences in your Apple II Reference manual, on the pages which correspond to the schematics here.

* The new board does not have RAM configuration blocks. This means the RAM Integrated Circuits (ICs) which give your Apple its memory MUST be 16K bit ICs. All of the RAM ICs in your Apple are within the white-outlined box on the board. If you add memory to your Apple, make sure all the ICs you add in this box are 16K RAM.

* The IC which controlled the configuration blocks in the older versions of the Apple II board is no longer there. It was formerly in the E2 position on the Apple board (in the row labeled E, the second IC from the left of the board) and was marked 74LS139.

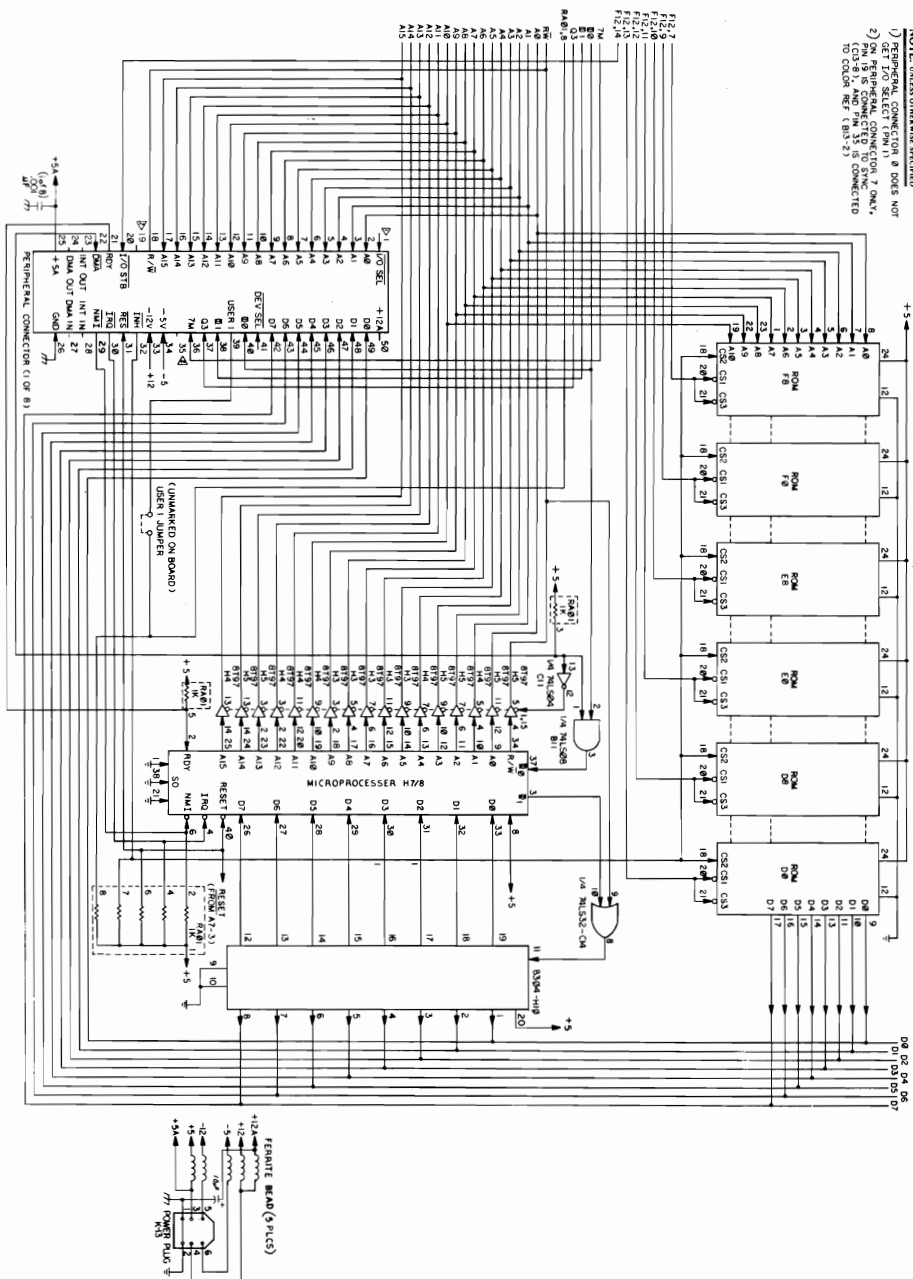
* This new board has a different character generator ROM IC. The character generator ROM IC determines what style of lettering, or character set, you'll see on your monitor or terminal screen. The new character generator ROM is found next to the Keyboard socket on the main board. This 2316B ROM has much more ROM (Read Only Memory) space than the former 2513 character generator ROM, so that it's possible to have more than one character set available. The 2316B ROM can also be replaced with a 2716 EPROM, which allows you to program and change your character sets.

* An inverter circuit has been added in the H2 line, which is a video synchronization signal. This alters the video synchronization pulse rate of the Apple so that is more compatible with video monitors that have digital synchronization circuitry.

* The power and ground system has been redesigned. The +5V and ground bus on the rear of the board have been interchanged so that the +5V bus is on the top of the board and the ground is on the bottom. A grounding bar has been added under the board to ensure electrical contact between the board and the metal baseplate.

NOTE: LOGIC SYMBOLS REQUIRED

- 1) ON PERIPHERAL CONNECTION 1, DOES NOT
- 2) ON PERIPHERAL CONNECTION 1, ONLY, CH-B, AND PIN 15 IS CONNECTED TO COLOR REF (B15-2)

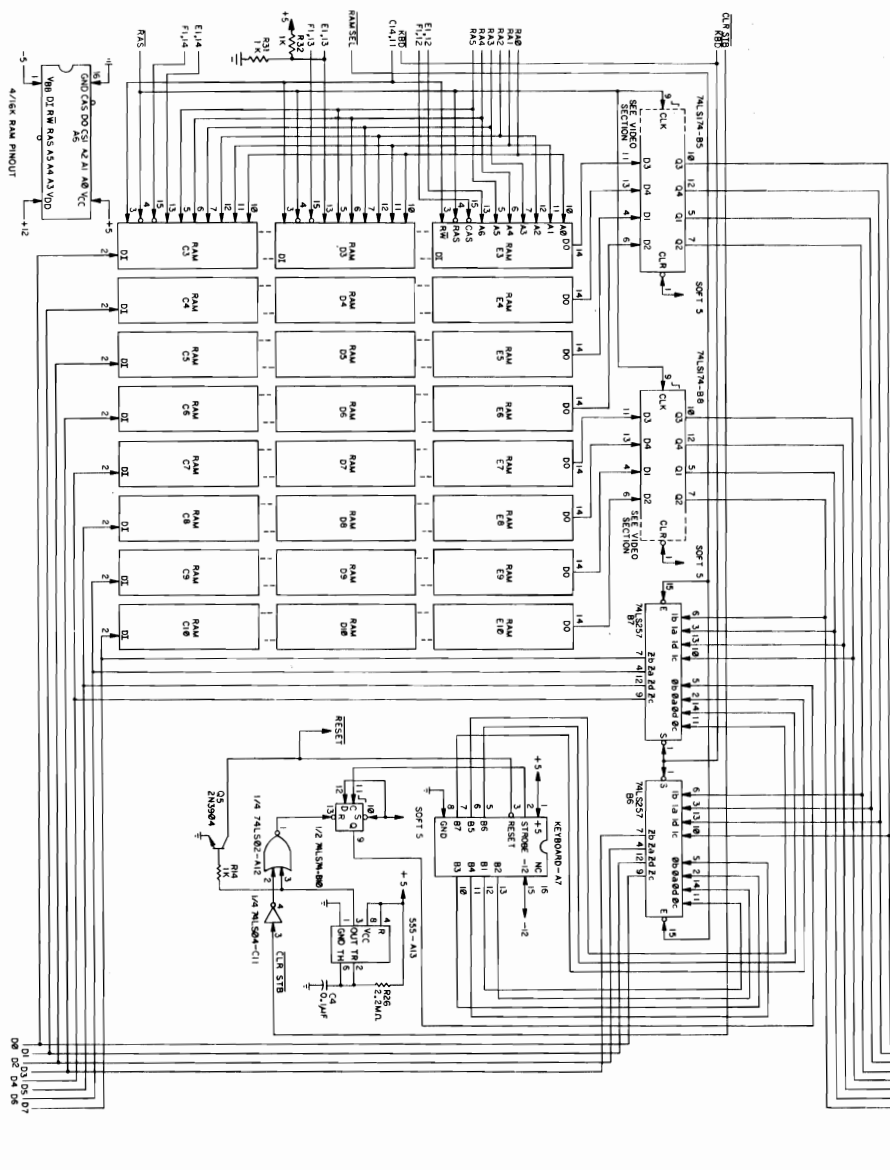


Replaces Figure 22-2. Schematic Diagram of the Apple II


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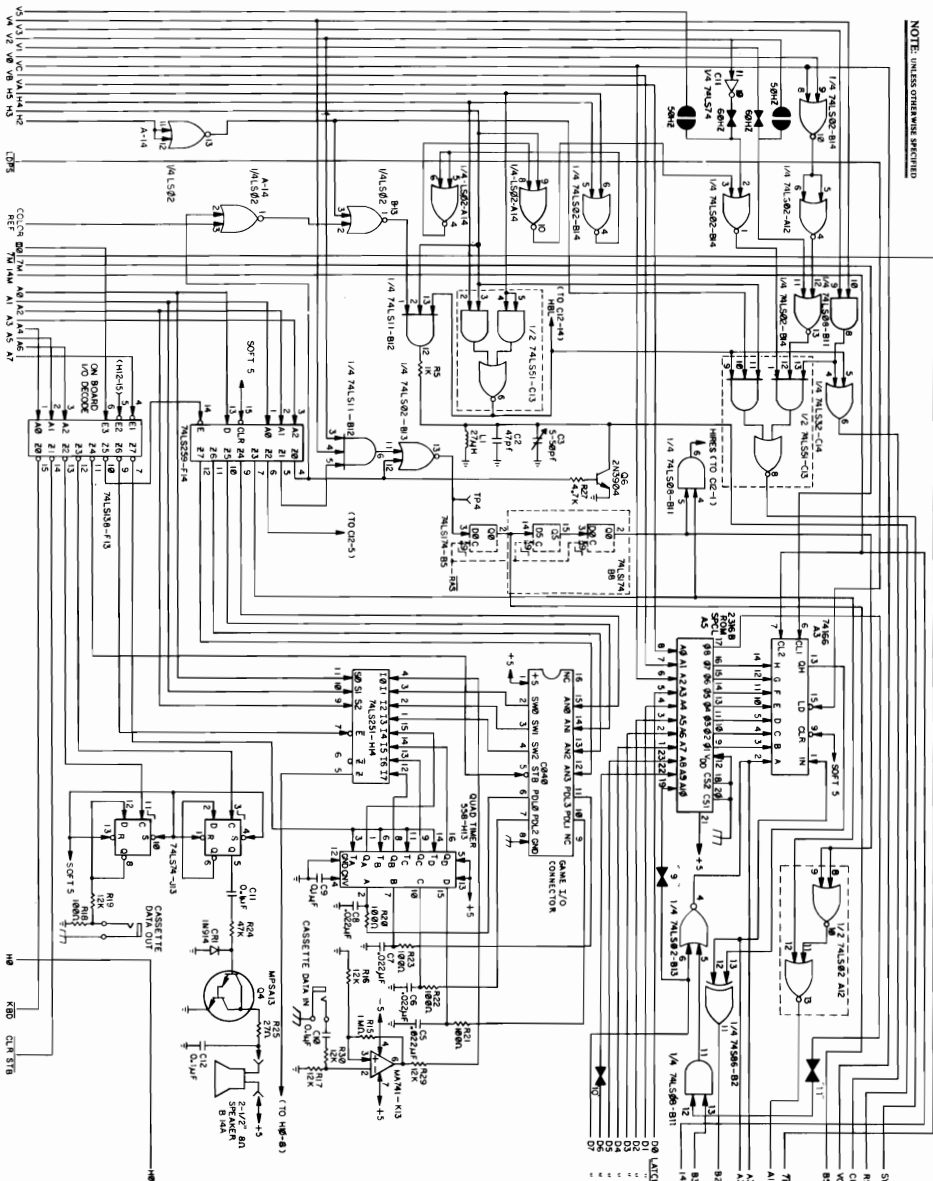
D0 D2 D4 D6
|D1|D3|D5|D7 > LATCHED

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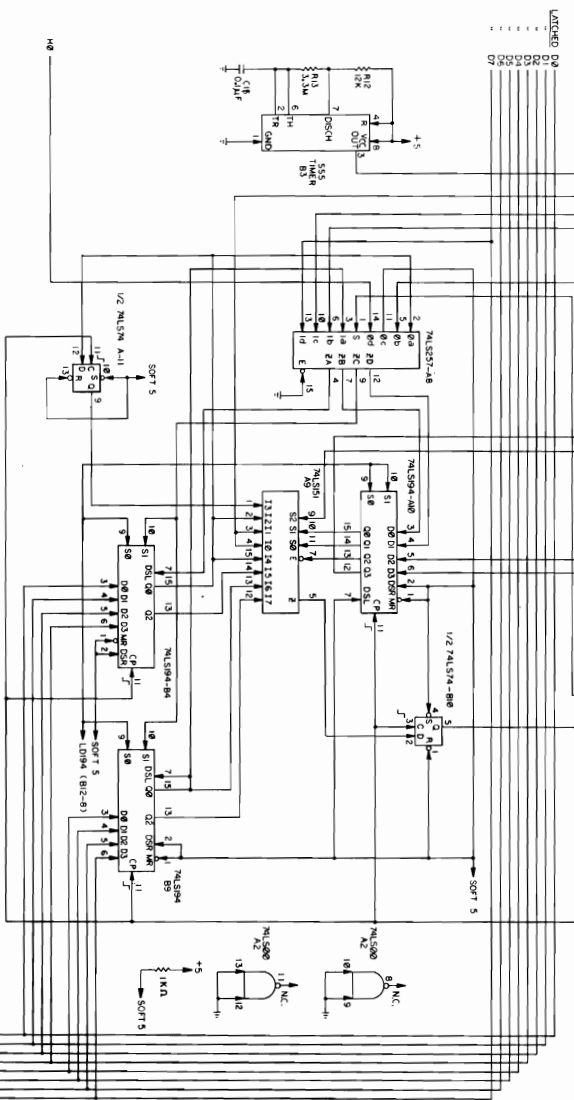


Replaces Figure 22-4. Schematic Diagram of the Apple II

NOTE: UNLESS OTHERWISE SPECIFIED



Replaces Figure 22-5. Schematic Diagram of the Apple II

[illegible]

D0	D2	D4	D6
D1	D3	D5	D7

Replaces Figure 22-6. Schematic Diagram of the Apple II